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PREHOSPITAL TRAUMA SYSTEMS

In this age of rapidly developing prehospital trauma care, Sophia was interested to read a study comparing the prehospital trauma care systems in nine different first world countries (*Injury* 2007;**38**:993–1000). The focus of the study was on the role of doctors in the prehospital team. A doctor as part of the emergency medical services team was associated with significantly reduced mortality in the first 24 hours, but not necessarily thereafter.

BASE JUMPING

Sophia has always had a penchant for extreme sports, but was slightly concerned to learn of the risks associated with one particular latest craze: BASE jumping. "BASE" is an acronym for "building, antenna, span, earth". However, jumping off tall buildings in cities has not proved popular with the authorities and so the attention of enthusiasts who wish to stay on the right side of the law has been diverted to jumping off mountains instead. Reporting their analysis of 20 000 jumps from the Kjerag Massif, Norwegian researchers warn that the risks of injury and/or death from BASE jumping are more than five times higher than those associated with skydiving (*J Trauma* 2007;**62**:1113–7). Perhaps Sophia should stick to skydiving....

NICE HEAD INJURY UPDATE

Clinical guidance from the National Institute for Health and Clinical Excellence (NICE) has had a significant impact on the management of head injury. The 2007 update (www.nice.org.uk/CG056) extends this guidance, particularly in relation to the timing of investigations and imaging of the cervical spine. A useful summary of the latest guidance update appears in the *BMJ* (2007;**335**:719–20).

PATIENT SATISFACTION AFTER MAJOR TRAUMA

This Australian study of major trauma victims used a postal questionnaire sent out between 1 and 6 years post-injury. Three-hundred and fifty-five replies (reflecting a response rate of 49%) were analysed. Chronic illness at the time of injury, or

unemployment at the time of follow-up, were both significantly associated with patient dissatisfaction. However, the strongest predictor was an unsettled compensation claim. There was no significant association with any measure of injury severity (*Injury* 2007;**38**:1102–8).

TASER AND THE HEART

Increasingly, law enforcement agencies around the world are turning to high-voltage, low-amperage electrical weapons that cause forceful muscle contractions in suspects to incapacitate them for arrest. Sophia was reassured to read a study from California (*J Emerg Med* 2007;**33**:113–7) in which 105 police volunteers were "shot" with a Taser while having continuous electrocardiogram (ECG) monitoring. One subject had a single premature ventricular contraction both before and after the shock. Alterations in the QT interval were noted in some subjects (both shortening and prolongation), but the effect of the shock itself on the ECG sometimes rendered interpretation difficult, so perhaps the true incidence and clinical significance remain unknown.

SERUM ALT IN LIVER TRAUMA

A prospective, observational study examined the role of serum alanine aminotransferase (ALT) in the diagnosis of liver injury following blunt abdominal trauma. In a 122-patient series, 32 patients had a raised ALT and 31 of those proved to have liver injury. No patient with a normal ALT had liver injury. Furthermore, five patients with a significantly raised ALT and normal ultrasound scan did have hepatic injury, and it seems that the degree of ALT rise might relate to severity of injury. Patients with more marked enzyme rises had more serious injuries, more complications, more blood transfused and a higher mortality (*Injury* 2007;**38**:1069–74).

POST-REDUCTION SHOULDER X RAYS

Researchers from Boston (*J Emerg Med* 2007;**33**:169–73) postulated that an emergency physician can tell clinically when a shoulder has been reduced and that fractures associated with shoulder dislocation

can be identified on the pre-reduction film, so the costly and time-consuming dose of radiation associated with a post-reduction film can be avoided. However, their results reveal that more than a third of fractures are only visible on post-reduction views, whose role seems set to continue.

CALCIUM CHANNEL BLOCKER OVERDOSE

One of the effects of calcium channel blocker overdose is hyperglycaemia, caused by the blockade of pancreatic calcium channels and increased insulin resistance. In another study from Boston (*Crit Care Med* 2007;**35**:2071–5), severity of overdose was compared retrospectively with blood glucose concentration. Glucose levels were found to correlate directly with the severity of the calcium channel blocker overdose, as measured by death, need for temporary pacing or need for vasopressors.

CHEST PAIN UNITS

Very large numbers of patients present to hospital each year with chest pain and many of these are admitted. Given this, it is easy to see why it appears to have become quite trendy to establish chest pain units in the UK. However, an analysis of data from 14 acute hospitals casts serious doubt on whether the introduction of chest pain units reduces medical admissions (*BMJ* 2007;**335**:659–62).

DIABETES IS STILL BAD FOR YOU

In case there was any danger of forgetting the importance of diabetes mellitus as a risk factor in ischaemic heart disease, *JAMA* (2007;**298**:765–75) has published a subgroup analysis of patients with diabetes enrolled in clinical trials evaluating acute coronary syndrome therapies between 1997 and 2006. Diabetic patients had significantly higher 30-day and 1-year mortality than patients without diabetes. The authors conclude that despite modern therapies for acute coronary syndrome, diabetes confers a significant adverse prognosis and they reiterate the importance of aggressive strategies to manage this high-risk population.